



National Weather Service

Storm Data and Unusual Weather Phenomena



August 2004

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

ILLINOIS, Northwest

Carroll County

Marcus to Ms Pallasades Sp	03	1900CST 1910CST			0	0	5K	2K	Thunderstorm Wind (EG57)
-------------------------------	----	--------------------	--	--	---	---	----	----	--------------------------

Bookend vorticity of squall line left Jackson County Iowa and entered Carroll County Illinois around 1900 CST (0100 UTC) near Marcus. Only damage reports received were that of large limbs down that took two people to move on Illinois 84 during 1902-1907 CST. The location is between 0.2 miles north northeast of Marcus near the golf course to 0.4 miles east northeast of Marcus near the northwest edge of Mississippi Pallasades State Park. The sheriff department indicated additional trees down on Senic Ridge Road during 1904-1909 CST. The location is likely between the Jo Daviess/Carroll county line and the northeast edge of Pallasades State Park. Although no additional reports of severe winds were received, KDVN 88D data suggests the potential for additional wind damage across the rest of Washington township, and across Woodland into Freedom townships to a development around Lake Carroll.

Whiteside County

Countywide	03	1905CST 1955CST			0	0	10K	5K	Thunderstorm Wind (EG57)
------------	----	--------------------	--	--	---	---	-----	----	--------------------------

Squall line left Clinton County Iowa and entered Whiteside County Illinois around 1900 CST (0100 UTC). Sporadic damage consisting of mainly trees and power lines down occurred across the northern part of the county from near Garden Plain, to Morrison, to north of Sterling. Trees were reported down on Elston Road during 1902-1907 CST. The exact location is not known but the likely area is between Fulton and Garden Plain with the immediate Garden Plain area being most probable. The KCWI AWOS reported 44 knots (51 mph) during 1845-1855 CST in Clinton County Iowa. Considerable damage occurred during 1915-1920 CST along Norrish Road, Hazel Road, and the intersection of Bishop and Holly Roads immediately to the north and east of Morrison. A large number of trees were downed along with power lines. The KDVN 88D showing a considerable increase in wind speed in this area to at least 60 knots aloft. Additional tree and power line damage occurred at the intersection of Holly and Habben Roads during 1923-1928 CST and the intersection of Flufs and Hoover Roads during 1944-1949 CST. The second location is located several miles north of Sterling. The KSQI AWOS south of Sterling reported 41 knots (47 mph) during 1945-1955 CST. Another area of damage occurred in the Coleta area during 1935-1942 CST with reports of trees and power lines down

Event Summary:

A squall line developed north of a stationary front across Southern Iowa into Northern Illinois in a near tropical atmosphere. The squall line moved east and bowed out as it moved through Benton, Linn, and Jones Counties in Iowa. Spotty severe wind was reported in the northern parts of Iowa and Johnson counties. A bookend vorticity developed on the squall line in Jones county and moved through Jackson County Iowa and into northwest Carroll County Illinois. Another small bowing of the squall line occurred across Whiteside County Illinois. The storms in the squall line were prolific lightning producers which caused severe damage to a house in Farmington, Iowa.

Warren County

Kirkwood	18	1701CST 1706CST			0	0	4K	2K	Hail(1.75)
----------	----	--------------------	--	--	---	---	----	----	------------

Henderson County

1 N Stronghurst	18	1726CST 1730CST			0	0	1K	3K	Hail(1.00)
-----------------	----	--------------------	--	--	---	---	----	----	------------



National Weather Service

Storm Data and Unusual Weather Phenomena



August 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

ILLINOIS, Northwest

Henderson County

Stronghurst	18	1737CST 1740CST			0	0	2K	2K	Thunderstorm Wind (EG52)
-------------	----	--------------------	--	--	---	---	----	----	--------------------------

Henderson County

4.7 N Biggsville	18	1757CST 1805CST			0	0	2K	4K	Hail(1.75)
------------------	----	--------------------	--	--	---	---	----	----	------------

Jct of IL 164 and 94

Henderson County

2 WSW Gladstone to 1.5 S Gladstone	18	1847CST 1855CST			0	0	4K	5K	Thunderstorm Wind (EG57)
---------------------------------------	----	--------------------	--	--	---	---	----	----	--------------------------

Trees down west of Gladstone to south of Gladstone

Thunderstorms developed north of a warm front in a near tropical atmosphere across Southern Iowa into Central Illinois. The storms organized into a squall line that bowed out across Southeast Iowa and West Central Illinois causing considerable wind damage. Ahead of the squall line, scattered severe storms occurred.

Hancock County

Fountain Green	25	1319CST 1322CST			0	0	1K	3K	Hail(1.00)
----------------	----	--------------------	--	--	---	---	----	----	------------

An upper level disturbance combined with a low level jet and a moist to near tropical atmosphere and allowed two separate mesoscale convective complexes to develop north of a warm front that was located over Missouri. The first convective complex produced an isolated hail report over West Central Illinois while the second complex produced an isolated severe wind report in Southeast Iowa.

Hancock County

5.6 SE Carthage	27	0055CST 0105CST			0	0	5K	10K	Thunderstorm Wind (MG59)
-----------------	----	--------------------	--	--	---	---	----	-----	--------------------------

Sustained winds of 35 knots (40 mph) to over 43 knots (50 mph).

Storms developed in a moist to near tropical atmosphere along a warm front from Dubuque, Iowa to Falls City, Nebraska, and ahead of a cold front in western Iowa. A strong low level jet continuously feed moist air into the storms resulting in copious amounts of rain in very short time periods across Eastern Iowa and West Central Illinois. The additional shear provided by the warm front allowed 3 tornadoes to develop. As the night progressed, the warm front stalled along the Iowa/Missouri border and became a focus for thunderstorms to train along with very heavy rainfall

ILZ034>035

Hancock - McDonough

27	1648CST			0	0	6K	Flood
28	0918CST						

Heavy rain of 2 to 3 inches from the 24th to the 28th of August resulted in isolated river flooding across Eastern Iowa, West Central Illinois, and far Northeast Missouri. Rivers that were affected were parts of the Iowa, La Moine, and Fox. The only areas affected by the flooding was farmland.

Hancock County

5.6 SE Carthage	28	0055CST 0105CST			0	0	3K	3K	Thunderstorm Wind (MG59)
-----------------	----	--------------------	--	--	---	---	----	----	--------------------------

Sustained winds of 35 knots (40 mph) to occasionally over 43 knots (50 mph).



August 2004									
Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

ILLINOIS, Northwest

Storms developed in a moist to near tropical atmosphere along a warm front from Dubuque, Iowa to Falls City, Nebraska, and ahead of a cold front in western Iowa. A strong low level jet continuously feed moist air into the storms resulting in copious amounts of rain in very short time periods across Eastern Iowa and West Central Illinois. The additional shear provided by the warm front allowed 3 tornadoes to develop. As the night progressed, the warm front stalled along the Iowa/Missouri border providing a focus for thunderstorms to train over the same area and produce very heavy rain.

IOWA, East Central and Southeast

Benton County Countywide

03	1654CST 1740CST	0	0	150K	50K	Thunderstorm Wind (EG61)
----	--------------------	---	---	------	-----	--------------------------

The squall line entered northwest Benton County around 1654 CST (2254 UTC) and created a consistent path of damaging winds in an east southeast direction across the northern part of the county to the Benton/Linn County line. Winds estimated at 52 knots (60 mph) occurred in Garrison during 1702-1712 CST, estimated 61 knots (70 mph) in Mt. Auburn 1708-1718 CST, Vinton 1713-1723 CST with a measured 58 knots (67 mph) at the sheriff department, and estimated 61 knots in Urbana 1732-1742 CST. Considerable damage occurred at the Vinton Airport located 3 miles north of Vinton with one hangar destroyed and another severely damaged. The damage was continuous with many corn fields flattened. In the southern part of the county wind damage was sporadic. Severe winds estimated at 52 knots (60 mph) occurred in Belle Plaine during 1702-1712 CST and Van Horne 1710-1720 CST.

Iowa County
Ladora

03	1716CST 1726CST	0	0	3K	3K	Thunderstorm Wind (EG52)
----	--------------------	---	---	----	----	--------------------------

4 inch diameter tree limbs down with damage to the siding of some mobile homes. Power lines also reported down. Numerous reports of estimated 43 knot (50 mph) winds west and east of Ladora.

Linn County
2.2 W Center Pt to
Center Pt

03	1723CST 1740CST	0	0	15K	7K	Thunderstorm Wind (EG61)
----	--------------------	---	---	-----	----	--------------------------

Squall line left Benton County between Urbana and Shellsburg and entered Linn County around 1723 CST (2323 UTC). Center Point took a direct hit with winds estimated at 61 knots plus (70+ mph) during 1730-1740 CST. Numerous trees and power lines were downed in the Center Point area with outbuildings destroyed or damaged and a horse trailer overturned. No additional reports of severe winds were received after Center Point. KDVN 88D velocity data suggests the potential for severe winds in a generally easterly path that went between Alburnett and Robins to between Waubeek and Springville to the Linn/Jones County line from 1740 to 1804 CST. In the Cedar Rapids metropolitan area, numerous reports of estimated 43 to 48 knots (50 to 55 mph) winds were received from local TV stations with KCID ASOS reporting a peak gust of 41 knots (47 mph) at 1733 CST (2333 UTC).

Iowa County
Williamsburg

03	1730CST 1740CST	0	0	3K	3K	Thunderstorm Wind (EG52)
----	--------------------	---	---	----	----	--------------------------

Trees and power lines down with several reports of estimated 43 knot (50 mph) winds west and east of Williamsburg



National Weather Service

Storm Data and Unusual Weather Phenomena



August 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Persons Injured	Estimated Damage Property	Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------	--------------------	---------------------------------	-------	--------------------

IOWA, East Central and Southeast

Jones County

Countywide

03	1755CST 1850CST			0	0	20K	9K	Thunderstorm Wind (EG61)
----	--------------------	--	--	---	---	-----	----	--------------------------

Squall line left Linn County between Waubeek and Springville and entered Jones County around 1755 CST (2355 UTC). Anamosa took a direct hit with winds estimated around 61 knots (70 mph) during 1758-1808 CST from a trained spotter and co-op observer. At this point, a book end vorticity began developing across the northern part of the county. The bookend vorticity moved in an east southeast direction from Monticello to the Jones/Jackson county line, passing north of Center Junction and Onslow. A brief power interruption occurred at the KMXO AWOS with the arrival of the gust front during 1808-1813 CST with winds gusting to 35 knots (40 mph) prior to the outage. Power came back for 1 minute at 1814 CST before failing completely with the arrival of the bookend vorticity. Winds estimated of at least 61 knots (70 mph) hit Monticello during 1814-1821 CST with numerous trees and power lines down. A few homes and a car dealership on the south side of Monticello sustained roof damage and broken windows. From Monticello to the Jones/Jackson county line, a spotter reported trees down 1.6 miles southeast of KMXO on 190th Street near Pictured Rocks State Park during 1819-1825 CST. The local newspaper reported a dented grain bin on the Welter farm 9.0 miles east southeast of KMXO along highway 136 during 1836-1842 CST.

Johnson County

5 E Iowa City

03	1811CST 1816CST			0	0	2K	3K	Thunderstorm Wind (MG61)
----	--------------------	--	--	---	---	----	----	--------------------------

Small trees down. KIOV ASOS is the Iowa River valley and partially sheltered by higher terrain. KIOV ASOS reported a peak wind of 43 knots (50 mph) at 1809 CST (0009 UTC). A few sporadic reports of 40-45 knots (46-52 mph) were received west of Iowa City.

Jackson County

2 NW Maquoketa

03	1900CST 1910CST			0	0	3K	3K	Thunderstorm Wind (EG57)
----	--------------------	--	--	---	---	----	----	--------------------------

8 inch diameter trees snapped off

Muscatine County

Muscatine Muni Arpt

03	1900CST 1910CST			0	0		2K	Thunderstorm Wind (MG50)
----	--------------------	--	--	---	---	--	----	--------------------------

KMUT AWOS

Jackson County

Maquoketa

03	1905CST 1915CST			0	0	8K	5K	Thunderstorm Wind (EG61)
----	--------------------	--	--	---	---	----	----	--------------------------

Numerous streets closed due to downed trees and power lines. A 15 inch diameter tree down on a house.

Only two severe reports were received in Jackson County. KDVN 88D reflectivity and velocity data suggests that damage may be more widespread across the southern part of the county during 1820-1930 CST (0020-0130 UTC). This would be consistent with the passage of the bookend vorticity as it moved across Jackson County

Van Buren County

Farmington

03	2315CST			0	0	20K		Lightning
----	---------	--	--	---	---	-----	--	-----------

Lightning strike destroyed the entire electrical system of a house and all electric appliances that were plugged into it



National Weather Service

Storm Data and Unusual Weather Phenomena



August 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

IOWA, East Central and Southeast

Event Summary:

A squall line developed north of a stationary front across Southern Iowa into Northern Illinois in a near tropical atmosphere. The squall line moved east and bowed out as it moved through Benton, Linn, and Jones Counties in Iowa. Spotty severe wind was reported in the northern parts of Iowa and Johnson counties. A bookend vorticity developed on the squall line in Jones county and moved through Jackson County Iowa and into northwest Carroll County Illinois. Another small bowing of the squall line occurred across Whiteside County Illinois. The storms in the squall line were prolific lightning producers which caused severe damage to a house in Farmington, Iowa.

Des Moines County 2 N Burlington

18	1652CST 1655CST	0	0						Funnel Cloud
-----------	----------------------------	----------	----------	--	--	--	--	--	---------------------

Louisa County Letts

18	1736CST 1740CST	0	0	2K	3K				Thunderstorm Wind (EG52)
-----------	----------------------------	----------	----------	-----------	-----------	--	--	--	---------------------------------

Henry County Mt Pleasant

18	1810CST 1820CST	0	0	10K	2K				Thunderstorm Wind (EG52)
-----------	----------------------------	----------	----------	------------	-----------	--	--	--	---------------------------------

Branches down over powerlines. Numerous trees down across the city with an AC unit blown out of a hotel wall.

Des Moines County 5 N Danville

18	1828CST 1835CST	0	0	3K	5K				Thunderstorm Wind (EG57)
-----------	----------------------------	----------	----------	-----------	-----------	--	--	--	---------------------------------

6-10 inch diameter trees down; power lines down with corn flattened.

Des Moines County 1 N Burlington

18	1841CST 1850CST	0	0	3K	2K				Thunderstorm Wind (EG57)
-----------	----------------------------	----------	----------	-----------	-----------	--	--	--	---------------------------------

6-10 inch diameter trees down with power lines down

Thunderstorms developed north of a warm front in a near tropical atmosphere across Southern Iowa into Central Illinois. The storms organized into a squall line that bowed out across Southeast Iowa and West Central Illinois causing considerable wind damage. Ahead of the squall line, scattered severe storms occurred.

Jefferson County Fairfield

25	1404CST 1408CST	0	0	2K	3K				Thunderstorm Wind (EG52)
-----------	----------------------------	----------	----------	-----------	-----------	--	--	--	---------------------------------

Also 1.3 inches of rain

An upper level disturbance combined with a low level jet and a moist to near tropical atmosphere and allowed two separate mesoscale convective complexes to develop north of a warm front that was located over Missouri. The first convective complex produced an isolated hail report over West Central Illinois while the second complex produced an isolated severe wind report in Southeast Iowa.

Benton County Belle Plaine

26	2103CST 2111CST	0	0	3K	2K				Thunderstorm Wind (EG52)
-----------	----------------------------	----------	----------	-----------	-----------	--	--	--	---------------------------------

Power out

Benton County Atkins

26	2105CST	0	0	5K	5K				Thunderstorm Wind (EG61)
-----------	----------------	----------	----------	-----------	-----------	--	--	--	---------------------------------



National Weather Service

Storm Data and Unusual Weather Phenomena



August 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>IOWA, East Central and Southeast</u>									
		2110CST							
A narrow swath of tree damage, siding blown off houses, and a collapsed garage (due to vehicle door failure) occurred in Atkins consistent with straight line winds around 70 mph.									
Iowa County									
Ladora	26	2110CST 2348CST			0	0			Heavy Rain
Iowa County									
Marengo to Amana	26	2110CST 2348CST			0	0			Heavy Rain
3 to 4 inches of rain from Marengo to Amana									
Linn County									
Palo	26	2110CST 2115CST			0	0	3K		Thunderstorm Wind (EG52)
Power out									
Linn County									
Hiawatha	26	2120CST 2124CST			0	1	20K		Thunderstorm Wind (EG61)
A mile long swath of straight line winds estimated at 70 mph occurred along Boyson Road in the northern part of Hiawatha. Damage was sustained to the local Farm Bureau office, the Hiawatha Care Center, a gas station, a banking center, and a sign company. A 91 year old female resident of the Care Center was injured when part of the wall was knocked out with damage to the roof.									
Linn County									
Cedar Rapids	26	2121CST 2221CST			0	0			Heavy Rain
2 inches in one hour									
Delaware County									
Colesburg	26	2127CST 2135CST			0	0	2K	2K	Thunderstorm Wind (EG52)
Linn County									
Fairfax	26	2129CST 2133CST			0	0	10K		Thunderstorm Wind (EG57)
Water ponding on the road heading toward Walford. Roof damage to a gas station with some windows broken out									
Linn County									
3.3 N Marion Arpt	26	2135CST 2140CST			0	0	20K	10K	Thunderstorm Wind (EG65)
Roof damage to a farm house with a barn collapsed. The barn collapse occurred after the main door had been blown inward. An aerial view indicated a fan shaped pattern of damage indicative of a downburst or microburst.									
Iowa County									
Ladora	26	2155CST 2200CST			0	0	5K	2K	Thunderstorm Wind (EG61)
Dubuque County									
3 SW Dyersville	26	2201CST			0	0			Funnel Cloud
Location is actually in Eastern Delaware County 4.2 miles northwest of Worthington. Spotters from the Dyersville Fire Department and in Worthington briefly glimpsed the Hopkinton Tornado as it roped out and dissipated on the horizon									



National Weather Service

Storm Data and Unusual Weather Phenomena



August 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

IOWA, East Central and Southeast

Iowa County

Middle Amana to Amana	26 27	2215CST 0100CST			0	0	40K	5K	Flash Flood
------------------------------	----------	--------------------	--	--	---	---	-----	----	--------------------

Between 2145 CST and 2245 CST, spotters reported that 4.5 to 5.5 inches of rain fell in the Amana's Colonies in Northeast Iowa County. A road was closed due to high water in Middle Amana and a nursing home was flooded with water up to 6 inches deep, including the kitchen and welcome areas. A small recreational dam on a pond between Middle Amana and High Amana broke flooding the immediate area.

Jackson County

Bellevue	26	2231CST 2236CST			0	0	2K		Thunderstorm Wind (EG52)
-----------------	----	--------------------	--	--	---	---	----	--	---------------------------------

Van Buren County

South Portion	27	0015CST 0700CST			0	0	50K	5K	Flash Flood
----------------------	----	--------------------	--	--	---	---	-----	----	--------------------

Thunderstorms trained across southern Van Buren County producing rainfall rates of up to 1.5 inches per hour. Ground truth reports indicated anywhere from 3.5 to 6 inches of rain. A house between Cantril and Mt Sterling had its basement flooded. The 290th Street Bridge located between Underwood and Timber Avenues southwest of Farmington collapsed after the embankments were washed away due to the flood waters.

Storms developed in a moist to near tropical atmosphere along a warm front from Dubuque, Iowa to Falls City, Nebraska, and ahead of a cold front in western Iowa. A strong low level jet continuously feed moist air into the storms resulting in copious amounts of rain in very short time periods across Eastern Iowa and West Central Illinois. The additional shear provided by the warm front allowed 3 tornadoes to develop. As the night progressed, the warm front stalled along the Iowa/Missouri border and became a focus for thunderstorms to train along with very heavy rainfall

Linn County

2.4 NNW Marion	26	2128CST 2129CST	0	40	0	0	10K		Tornado (F1)
-----------------------	----	--------------------	---	----	---	---	-----	--	---------------------

Rated high F1

A tornado briefly touched down in the Hunters Ridge area northwest of Marion and caused considerable damage to a house.

Linn County

1.7 WSW Whittier to 1.1 W Whittier	26	2136CST 2138CST	0.8	40	0	0	10K		Tornado (F1)
---	----	--------------------	-----	----	---	---	-----	--	---------------------

Rated low F1

The second tornado in Linn county developed in a corn field and moved northeast or north northeast, crossing County Route E34 before dissipating in another corn field.

Delaware County

.1 S Hopkinton to 2.8 NE Hopkinton	26	2151CST 2201CST	4.2	440	0	0	75K	20K	Tornado (F1)
---	----	--------------------	-----	-----	---	---	-----	-----	---------------------

Rated high F1

Tornado developed just south of Hopkinton and moved northeast for 0.15 miles to the edge of Hopkinton. Tornado then turned right and moved roughly east northeast for 1 mile destroying 2 machine sheds and damaging a third while toppling many trees on the Wendt Farm. At this point, the tornado began an arcing turn to the left for the remainder of its life. It crossed 300th Avenue one quarter of a mile south of 305th Street and went through the Lamont Farm. An old barn was moved off its foundation for approximately 50 yards. The tornado crossed 305th Street about one half mile east of 300th Avenue and moved northeast through the Feldman Farm. Here several large trees were damaged or destroyed with damage to several metal machine sheds. A grain bin was destroyed and scattered across the field. The tornado crossed 300th Street 0.2 miles west of County X47 and crossed X47 about



National Weather Service

Storm Data and Unusual Weather Phenomena



August 2004

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

IOWA, East Central and Southeast

one half mile north of 300th Street. The tornado dissipated just to the east of X47 and just south of 295th Street. The width of the path varied from as narrow as 10 yards to one quarter mile wide.

Johnson County
2 S Cosgrove

27	1943CST 1946CST	0	0	2K	Hail(0.75)
----	--------------------	---	---	----	------------

Thunderstorms developed north of a stationary front along the Iowa/Missouri border in a near tropical atmosphere and produced an isolated severe hail report. Storms development was aided by boundaries left over from storms the previous night

IAZ063

Iowa

27 29	2032CST 0543CST	0	0	10K	Flood
----------	--------------------	---	---	-----	-------

Heavy rain of 2 to 3 inches from the 24th to the 28th of August resulted in isolated river flooding across Eastern Iowa, West Central Illinois, and far Northeast Missouri. Rivers that were affected were parts of the Iowa, La Moine, and Fox. The only areas affected by the flooding was farmland.

MISSOURI, Northeast

Clark County
North Portion

27	0030CST 0715CST	0	0	50K	5K	Flash Flood
----	--------------------	---	---	-----	----	-------------

Thunderstorms trained across northern Clarke County producing rainfall rates of up to 1.5 inches per hour. County roads 7 and 10 west northwest of Anson were closed due to high water. County Route K north of Luray was also closed due to high water with some damage to the roadbed.

Clark County
4 S Kahoka

27	0200CST 0715CST	0	0	10K	3K	Flash Flood
----	--------------------	---	---	-----	----	-------------

Route D closed due to high water.

Storms developed in a moist to near tropical atmosphere along a warm front from Dubuque, Iowa to Falls City, Nebraska, and ahead of a cold front in western Iowa. A strong low level jet continuously feed moist air into the storms resulting in copious amounts of rain in very short time periods across Eastern Iowa and West Central Illinois. The additional shear provided by the warm front allowed 3 tornadoes to develop. As the night progressed, the warm front stalled along the Iowa/Missouri border and became a focus for thunderstorms to train along with very heavy rainfall.

MOZ010

Clark

27 29	1317CST 2226CST	0	0	5K	Flood
----------	--------------------	---	---	----	-------

Heavy rain of 2 to 3 inches from the 24th to the 28th of August resulted in isolated river flooding across Eastern Iowa, West Central Illinois, and far Northeast Missouri. Rivers that were affected were parts of the Iowa, La Moine, and Fox. The only areas affected by the flooding was farmland.